

REMARKS

In the outstanding Office Action, the Examiner rejected claims 1-15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,583,934 to Kramer (“Kramer”); and rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Kramer in view of U.S. Patent Application Publication No. 2003/0067645 to Ibsen et al. (“Ibsen”). By this amendment, Applicants amend claim 1. Claims 1-15 and 23 are currently pending.

Regarding the rejection of claims 1-5 and 23 under 35 U.S.C. § 103(a), Applicants respectfully disagree with the Examiner’s arguments and conclusions as set forth in the outstanding Office Action¹. Accordingly, Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), each of three requirements must be met. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. *See* MPEP §2143.03, 8th Ed. (Rev. 2), May, 2004. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of the three requirements must “be found in the prior art, and not be based on applicant’s disclosure.” *See* MPEP § 2143, 8th Ed. (Rev. 2), May, 2004. At a minimum, the Examiner has failed to show that the references teach or suggest each and every element required by the claims.

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement of characterization in the Office Action.

For example, Kramer fails to teach or suggest the claimed combination including “wherein the first section, the second section, the third section, and the diffraction grating are integrally formed as a single molded piece,” as recited in amended claim 1.

At page 4 of the Office Action, the Examiner states:

[integrally formed] using a molding process has not given a patentable weight by the examiner because as stated in the MPEM [sic] 2144.04, such as section V.B does not warrant patentability based on integrally forming a device, such as by molding process.

A closer reading of the cited section of the MPEP, however, reveals that the Examiner’s statement is not entirely correct. The cited section further states:

but see *Schenk v. Nortron Corp.* ... [c]laims were directed to a vibratory testing machine ... comprising a holding structure, a base structure, and a supporting means which form “a single integral and gaplessly continuous piece” [wherein] [t]he court ... held that the claims were patentable because the prior art perceived a need for mechanisms to dampen resonance, whereas the inventor eliminated the need for dampening via the one-piece gapless support structure, showing insight that was contrary to the understandings and expectations of the art.

MPEP § 2144.04 V B, 8th Ed. (Rev. 2), May, 2004 (internal citations omitted). Similarly, here Applicants have perceived a need for making integral the first section, the second section, the third section, and the diffraction grating to eliminate the steps of alignment throughout the optical system. See Applicant’s specification, at e.g., paragraph [40]. Accordingly, Applicants respectfully submit that “integrally formed,” as recited in claim 1, shows insight that may be contrary to the understandings and expectations of the art, and thus should be given its proper and deserved patentable weight.

The Examiner further states at page 4 of the Office Action:

further the presence of process limitations on product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product.

Although applicants do not agree with the Examiner's assertion, Applicants have amended claim 1 to remove the process limitation in order to expedite prosecution. Moreover, with respect to the new element, "molded single piece" as recited in amended claim 1, Applicants respectfully direct the Examiner's attention to MPEP § 2113, which states:

[t]he structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product ... terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of constructions as structural limitations.

MPEP § 2113, 8th ed. (Rev. 2), May, 2004. Here, the term "molded single piece" as recited in claim 1 imparts a product which can only be made by the process of molding. Moreover, "molded single piece" imparts a distinctive structural characteristic to the final product, such as the terms "welded," "press fitted," and "etched," and should be construed as a structural limitation. Accordingly, the term "molded" should be given patentable weight by the Examiner.

As stated above, Kramer fails to teach or suggest at least the claimed combination including "wherein the first section, the second section, the third section, and the diffraction grating are integrally formed as a single molded piece," as recited in amended claim 1. Kramer teaches an optical wavelength selection apparatus, which may be used as a demultiplexer. Kramer, col. 19, lines 28-31. The apparatus 80 (see Figure 5) comprises a plurality of components, including diffraction grating 10, housing 100, and detector array 94. Diffraction grating 10 is produced from photoresist deposited on a substrate. Kramer, col. 7, lines 46-57. Diffraction grating is then incorporated into apparatus 80 and enclosed in housing 100, wherein all elements may be sealed together using epoxy or other similar sealant. Kramer, col. 13, lines 31-35; col. 6, lines 19-22; col. 19, lines 3-9; col. 20, lines 13-20. Kramer, however, is silent to at

least “wherein the first section, the second section, the third section, and the diffraction grating are integrally formed as a single molded piece,” as recited in amended claim 1. Since Kramer fails to teach or suggest each and every element of claim 1, the Examiner has failed to establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. § 103(a) be withdrawn.

If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988). Claims 2-15 depend from independent claim 1, and thus require all of the elements of claim 1. Since Kramer fails to teach or suggest each and every element of claim 1, that reference also fails to teach or suggest each and every element required by the dependent claims. Accordingly, Applicants respectfully request that the rejection of claims 2-15 under 35 U.S.C. § 103(a) be withdrawn.

Moreover, Kramer fails to teach the claimed combination including “means for separating an input light beam into constituent parts with a molded single piece component,” as recited in claim 23. As noted above, Kramer teaches an optical wavelength separation formed using a plurality of components encapsulated in a housing using epoxy. Diffraction grating 10 facilitates the separation of the input beam, and since this is formed outside apparatus 80 and later incorporated, Kramer is silent to at least “means for separating an input light beam into constituent parts with a molded single piece component,” as recited in claim 23.

At page 8 of the Office Action, the Examiner states:

Kramer does not specifically teach wherein the above integrally formed component is a molded single piece component ... the examiner does not give patentable weight to molded single piece based on the arguments that were present in claim 1.

Applicants disagree with this statement because the Examiner's position does not comply with standard U.S. patent practice. As discussed *supra*, the MPEP states:

[t]he structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart *distinctive structural characteristics* to the final product ... terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of constructions as structural limitations.

MPEP § 2113, 8th ed. (Rev. 2), May, 2004 (emphasis added). Here, the term "molded single piece" as recited in claim 23 imparts a product which can only be made by the process of molding. Moreover, "molded single piece" imparts a distinctive structural characteristic to the final product, such as the terms "welded," "press fitted," and "etched," and should be construed as a structural limitation. Accordingly, the term "molded" should be given patentable weight by the Examiner.

Furthermore, Ibsen fails to cure the above-noted deficiencies of Kramer. The Examiner states that "this limitation is more specifically taught by Ibsen et al." Office Action, page 8.

Contrary to the Examiner's assertion, Ibsen teaches in reference of Figure 26:

[a]n *integral frame* 2602 holds the gratings 214 and 216, and the focusing mirror 220. The integral frame 2602 may be machined from metal, such as aluminum, *or may be precision injection molded using a plastic material* ... *[i]ndependent attachment of the plate* provides a degree of adjustability in the alignment.

Ibsen, paragraphs [0153]-[0154] (emphasis added). Accordingly, Ibsen only teaches that the frame is integral and may be molded, and does not teach that the gratings 214 and 216 are molded. Moreover, gratings 214 and 216 are attached to plate 2608, which as cited above, is *independently attached*. Accordingly, Ibsen fails to teach at least the element "means for separating an input light beam into constituent parts with a molded single piece component," as

recited in claim 23. At best, Ibsen merely teaches a molded frame containing a plurality of elements which are independently attached for providing a degree of adjustability.

Since neither Kramer nor Ibsen teach or suggest each and every element recited in claim 23, the Examiner has failed to establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the rejection of claim 23 under 35 U.S.C. § 103(a) be withdrawn, and the claim allowed.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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